

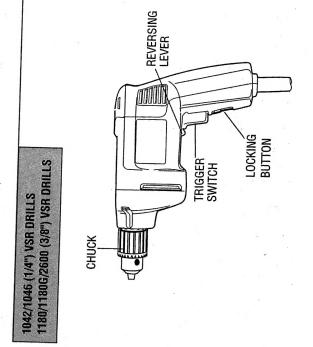
Instruction Manual

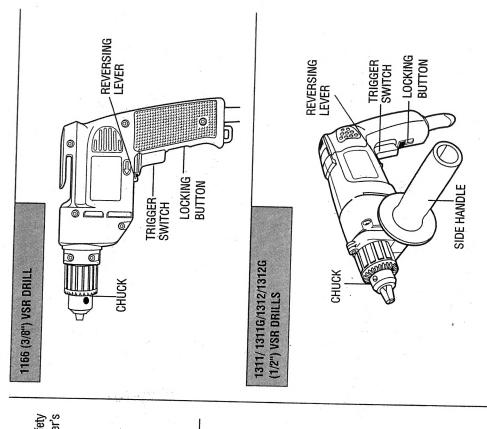
1311G • 1312 • 1312G • 2600 VSR Drill 1042 • 1046 • 1166 • 1180 • 1180G

Getting the most out of your tool.

Please take time to read this manual and pay particular attention to the safety rules we've provided for your protection. Don't forget to send in your owner's registration card. If you have any questions about your tool please call:

1-800-9-BD T00L (1-800-923-8665)





FOR YOUR SAFETY - ALL TOOLS

WARNING: When using electric tools, basic safety precautions should always be followed to reduce risk of fire, electric shock, and personal injury, including the following:

READ ALL INSTRUCTIONS

Double Insulation (1042, 1046, 1166, 1180, 1311, 1312, 2600)

Double insulated tools are constructed throughout with two separate layers of electrical insulation or one double thickness of insulation between you and the tool's electrical system. Tools built with this insulation system are not intended to be grounded. As a result, your tool is equipped with a two prong plug which permits you to use extension cords without concern for maintaining a ground connection.

NOTE: Double insulation does not take the place of normal safety precautions when operating this tool. The insulation system is for added protection against injury resulting from a possible electrical insulation failure within the

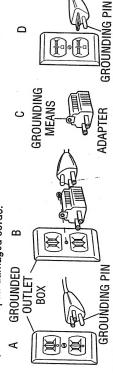
CAUTION: WHEN SERVICING USE ONLY IDENTICAL REPLACEMENT PARTS. Repair or replace damaged cords.

Polarized Plugs (1042, 1046, 1166, 1180, 1311, 1312, 2600)

reduce the risk of electric shock. When provided, this plug will fit into a Polarized plugs (one blade is wider than the other) are used on equipment to polarized outlet only one way. If the plug does not fit fully into the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install he proper outlet. Do not change the plug in any way.

Grounding Instructions (1180, 1311G, 1312G)

grounding type plug to fit the proper grounding type receptacle. The green tric shock. The tool is equipped with a 3-conductor cord and 3-prong connect the green (or green and yellow) wire to a live terminal. If your unit is (or green and yellow) conductor in the cord is the grounding wire. Never shown in sketch D. An adapter, sketches B and C, is available for connecting ground, such as a properly grounded outlet box. No adapter is available for a This tool should be grounded while in use to protect the operator from elec intended for use on less than 150 V, it has a plug that looks like that shown in sketch A. If it is for use on 150 to 250 V, it has a plug that looks like that sketch A type plugs to 2-prong receptacles. The green-colored rigid ear, lug. or the like, extending from the adapter must be connected to a permanent plug as shown in sketch D. ADAPTER SHOWN IN FIGURES B and C IS NOT FOR USE IN CANADA. Use only 3-wire extension cords that have 3-prong grounding-type plugs and 3-pole receptacles that accept the tool's plug Replace or repair damaged cords.



Safety Instructions For All Tools

- KEEP WORK AREA CLEAN. Cluttered areas and benches invite injuries.
- CONSIDER WORK AREA ENVIRONMENT. Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep work area well lit. Do not use tool in presence of flammable liquids or gases.
 - GUARD AGAINST ELECTRIC SHOCK. Prevent body contact with grounded surfaces. For example; pipes, radiators, ranges, and refrigerator enclosures.

- KEEP CHILDREN AWAY. Do not let visitors contact tool or extension cord. All visitors should be kept away from work area.
- **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked-up place out of reach of children.
 - **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was intended.
- **USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy-duty tool. Don't use tool for purpose not intended.
 - DRESS PROPERLY. Do not wear loose not intended.

 BRESS PROPERLY. Do not wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
- USE SAFETY GLASSES. Also use face or dust mask if operation is dusty.
- **DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
- **SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
 - DON'T OVERREACH. Keep proper footing and balance at all times.
- MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.
- **DISCONNECT OR LOCK OFF TOOLS** when not in use, before servicing, and when changing accessories, such as blades, bits, cutters.
- **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on
- **AVOID UNINTENTIONAL STARTING.** Don't carry tool with finger on switch. Be sure switch is off when plugging in.
- **EXTENSION CORDS.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in

line voltage resulting in loss of power and overheating. The following table shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

Minimum Gage for Cord Sets

101-150 201-300		14 12 12 nmended
l in Feet 51-100 101-200		16 14 14 12 14 12 Not Recommended
70tal Length of Cord in Feet 0-25 26-50 51-100 0-50 51-100 101-200	AWG	12 12 14 15 15 15 15 15 15 15 15 15 15 15 15 15
Total L 0-25 0-50		8894
	Rating Not more Than	6 17 16 16
Volts 120V 240V	Ampere Ratii More No Than Th	120

- **OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
 - **STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
- CHECK DAWAGED PARTS. Before further use of the tool, a guard or other
 part that is damaged should be carefully checked to determine that it will
 operate properly and perform its intended function. Check for alignment of
 moving parts, binding of moving parts, breakage of parts, mounting, and
 any other conditions that may affect its operation. A guard or other part that
 is damaged should be properly repaired or replaced by an authorized service
 center unless otherwise indicated elsewhere in this instruction manual. Have
 defective switches replaced by authorized service center. Do not use tool if
 switch does not turn it on and off.
 - CAUTION: When drilling or driving into walls, floors or wherever live electrical wires may be encountered, DO NOT TOUCH ANY METAL PARTS OF THE TOOL! Hold the tool only by insulated grasping surfaces to prevent electric shock if you drill or drive into a live wire.

SAVE THESE INSTRUCTIONS

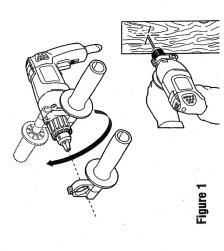
TOOL OPERATION

Side Handle (1311/1311G/1312/1312G)

CAUTION: Always use side handle when provided and hold drill with both hands. A side handle is supplied with all 1/2" and some 3/8" drills. In most cases, it clamps to the front of the gear case as shown in Figure 1 and can be rotated 360" to permit right or left hand use.

Switch

To start drill, depress the trigger switch, shown in Figure 2. To stop drill, release the switch. To lock the trigger switch in the ON position for continuous operation, depress the trigger switch and push up the *locking button*. The tool will continue to run. To turn the tool OFF, from a locked ON condition, squeeze and release the trigger once. Before using the tool (each time), be sure that the locking button release mechanism is working freely.



Do not lock the switch ON when drilling by hand so that you can instantly release the trigger switch if the bit binds in the hole. The locking button is for use only when the drill is mounted in a drill press stand or other wise held stationary. Be sure to relase the locking mechanism before disconnecting the plug from the power supply. Failure to do so will cuase the drill to start immediately the next time it is plugged in. Damage or injury could result.

The variable speed trigger switch permits speed control. The farther the trigger switch is depressed, the higher the speed of the drill.

REVERSING
LEVER
TRIGGER
SWITCH
LOCKING BUTTON
Figure 2

NOTE: Use lower speeds for starting holes without a centerpunch, drilling in metal, plastics or ceramics, or driving screws. Higher speeds are better for drilling in wood and composition board and for using abrasive and polishing accessories.

The *reversing lever* is used to reverse the drill for backing out screws or jammed bits. It is located above the trigger, shown in Figure 2. To reverse the drill, turn it OFF and push the reversing lever to the left (when viewed from the chuck end). To position the lever for forward operation, turn the drill OFF and push the lever to the right.

Chuck

To insert bit, open chuck jaws by turning collar with fingers and insert shank of bit about 3/4" into chuck. Tighten chuck collar by hand. Place chuck key in each of the three holes and tighten in clockwise direction. It's important to tighten chuck with all three holes. To release bit, turn chuck key counterclockwise in just one hole, then loosen the chuck by hand.

Chuck Key Holder

(May be installed already)

- 1. Push double hole end of holder through slot in other end of holder (Figure 3).
- 2. Slip loop over electric plug and draw loop tight around cord (Figure 4).
- Push ends of chuck key handle through two holes in end of holder (Figure 5).

Chuck Removal

- TURN OFF TOOL AND DISCONNECT FROM POWER SUPPLY.
- .. Place chuck key in chuck as shown in Figure 6.
- Using a wooden mallet or similar object, strike key sharply in a clockwise direction. This will loosen screw inside chuck (Figure 6).
- Open chuck jaws fully. Insert screwdriver (or 3/16" hex wrench if required) into front of chuck between jaws to engage screw head.

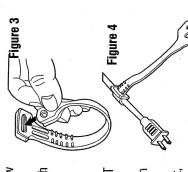
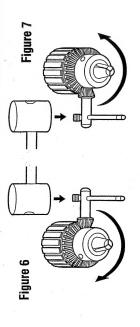


Figure 5



- 5. Remove screw by turning clockwise (left-hand thread).
- 6. Place key in chuck as shown in Figure 7.
- Using a wooden mallet or similar object, strike key sharply in a counterclockwise direction. This will loosen chuck so that it can be unscrewed by hand (Figure 7).

rilling

- Always turn off tool and disconnect from power supply when attaching or changing bits or accessories.
- Use sharp drill bits only. For WOOD, use twist drill bits, spade bits, power
 auger bits, or hole saws. For METAL, use high speed steel twist drill bits
 or hole saws. For MASONRY, such as brick, cement, cinder block, etc.,
 use carbide-tipped bits
- 3. Be sure the material to be drilled is anchored or clamped firmly. If drilling thin material, use a "back-up" block to prevent damage to the material.
- 4. Always apply pressure in a straight line with the bit. Use enough pressure to keep the drill bit biting, but do not push hard enough to stall the motor or deflect the bit.
- 5. Hold tool firmly to control the twisting action of the drill

- 6. IF DRILL STALLS, it is usually because it is being overloaded. RELEASE TRIGGER IMMEDIATELY, remove drill bit from work, and determine cause of stalling. DO NOT CLICK TRIGGER OFF AND ON IN AN ATTEMPT TO START A STALLED DRILL – THIS CAN DAMAGE THE DRILL.
 - . To minimize stalling on breaking through the material, reduce pressure on drill and ease the bit through the last fractional part of the hole.
 - Keep the motor running when pulling the bit back out of a drilled hole. This will help prevent jamming.
- 9. With variable speed drills there is no need to center punch the point to be drilled. Use a slow speed to start the hole and accelerate by squeezing the trigger harder when the hole is deep enough to drill without the bit skipping out. Operate at full speed after starting the bit.

Drilling in Wood

Holes in wood can be made with the same twist drills used for metal. These bits may overheat unless pulled out frequently to clear chips from the flutes. For larger holes, use spade bits, power auger bits, or hole saws. Work that is likely to splinter should be backed up with a block of wood.

Drilling in Metals

Use a cutting lubricant when drilling metals. The exceptions are cast iron and brass which should be drilled dry. The cutting lubricants that work best are sulphurized cutting oil or lard oil; bacon grease will also serve the purpose.

Drilling in Masonry

Use carbide tipped masonry bits at low speeds. Keep even force on the drill but not so much that you crack the brittle materials. A smooth, even flow of dust indicates the proper drilling rate.

EUNINEMNIN

Lubrication

All ball and sleeve bearings used are factory lubricated to last the life of the bearings. All needle bearings used received their lubrication from the grease in the gear case. Clean and relubricate gear case yearly or whenever servicing requires the gear case to be removed. Use type and quantity of grease shown on Parts Bulletin packed with your tool.

The gear case is removed by removing the three screws from the front of the tool. If the chuck is too large to permit removal of the two top screws, see instructions for chuck removal.

Motor Brushes

Your drill uses the B&D CHECKPOINT $^{\text{IM}}$ brush system. The tool will stop when the brushes wear out. This prevents damage to the motor.

MPORTANT

To assure product safety and reliability, particularly for double Insulated tools, repairs, maintenance and adjustment (excluding maintenance described in this manual) should be performed by B&D service centers or authorized service centers, using identical B&D replacement parts.

S=1140SS=199V

Recommended accessories for use with your tool are available at extra cost from your distributor or local service center. A complete listing of service centers is included with your tool.

CAUTION: The use of any non-recommended accessory may be hazardous.

If you need any assistance in locating any accessory call 1-800-9-BD TOOL: (1-800-923-8665) or contact Black & Decker (U.S.) Inc., Consumer Services Department, 626 Hanover Pike, P.O. Box 618, Hampstead, MD 21074.

MAXIMUM RECOMMENDED CAPACITIES

Drill Capacity RPM	1/2"	1/2" 0-900	3/8" 0-1200	3/8" 0-2000	1/4" 0-2500	
Bits, Metal Drilling	1/2"	1/2"	3/8"	3/8"	1/4"	
Wood Flat Boring	11/2"	11/2" 11/2"	1 1/4"	-	3/4"	
Bits, Masonry Drilling 9/16"	9/16"	9/16"	9/16"	1/2"	1/2"	
Hole Saws Wood	3 1/2" 3"	က	11/2"	1 1/8"	1 1/8"	
Hole Saws Steel	2"	1 1/2"	1 1/4"			
				The second secon		

ACCESSORY MUST BE RATED FOR USE AT SPEED EQUAL TO OR HIGHER THAN NAMEPLATE RPM OF TOOL WITH WHICH IT IS BEING USED.

4" Diameter Maximum	3" Diameter Maximum	3" Diameter Maximum	4-5/8" Diameter Maximum
Wire Wheel Brushes	Wire Cup Brushes	Buffing Wheels	Rubber Backing Pads

CARBON REMOVING BRUSHES

Made of tempered-steel wire; used with 1/4" drills to remove rust and scale from metals. Leaves a burnished surface.

A.Heavy duty solid wire-filled brush.

B.Side-flare brush for close corner work.

C.Hollow-core, flare bottom brush. Small cleaning brush (not shown).

WIRE WHEEL BRUSHES

Use in cleaning and removing rust, scale, old paint. Maximum safe RPM-5000.



MIRE CUP BRUSH

Jse in cleaning and removing rust, scale, old paint. Maximum safe RPM-5000.



Capacity 1/4" to 1/2". Governs drilling depth.

DRILL STOP

WHEEL ARBORS
Fit 1/4" to 1/2" drills. Carry wire wheel brushes and buffing wheels.



5

BUFFING WHEELS

Use with 1/4" to 1/2" drills and wheel arbors. $3" \times 3/8" \times 1/2"$ cotton buff.



RUBBER BACKING PAD

Fit 1/4" to 1/2" drills. 4-5/8" rubber backing pad with plain shank. Used for sanding operations.



Use with rubber backing pad.



ROUND-SHANK MASONRY BITS

These bits are carbide-tipped for top performance and extra long life in most masonry drilling applications.

SHANK DIAMETER	3/16"	1/4"	1/4"	1/4"	1/4"	
USABLE DRILLING DEPTH	1-1/2"	2"	2-1/4"	2-1/2"	2-1/2"	
BIT DIAMETER	3/16"	1/4"	5/16"	3/8"	1/2"	

HIGH-SPEED HOLE SAWS (Use with mandrels)

FOR PIPE TAP SIZES		ndrel; no separate mandrel			3/4"			
FOR CONDUIT SIZES		5/8" hole saw has built in mandrel; no separate mandrel	3/8"	1/2"	-			3/4"
SAW OUTSIDE	DIAMETERS	2/8"	3/4"	.8/2	1-5/16"	-	1-1/16"	1-1/8"

Every B&D tool is of the highest quality

If you wish to contact us regarding this product, please call toll free between 8:00am and 8:00pm ET, seven days a week.

1-800-9-BD T00L

(1-800-923-8665)

One Year Service/Safety Check

All B&D tools for Industry and Construction are covered under a service/safety check program where B&D will inspect your tool for safety and provide necessary maintenance or repairs, including normal wear and tear parts, for one year, FREE OF CHARGE.

Full Warranty

All B&D tools for Industry and Construction are warranted to be free of any defects in materials or workmanship. Upon thorough examination of tool, B&D will repair or replace, at our option, any product that is determined to be defective.

Conditions

The service/safety check and the warranty do not apply to: repairs made or attempted by anyone other than an authorized B&D service location; misuse, abuse, neglect, improper application of the tool; missing parts; or normal wear and tear (after first year of ownership). Please return the complete unit, transportation prepaid, to any B&D factory owned or B&D authorized service center location (list provided with tool or see Yellow Pages under "Tools Electric").

YOUR POWER TOOLS MAY BE SERVICED AT THE FOLLOWING B&D SERVICE CENTERS.

Bradenia Anti- Bradenia Att 11	56. West St. 57. West St. 58. West St. 59. 1859 Fords Blvd 51. 1850 St. St. 51. 1850 St. 52. 1841 St. 52. 1841 St. 53. 1841 St. 53. 1841 St. 53. 1841 St. 53. 1841 St. 54. 1850 St. 55. 1841 St. 56. 1841	Number	0HI0 (CONIT'D) Perma Heights (Cleveland) 44130, 6483 Pearl Road	0	Driftend 97209 1640 N.W. Johnson St.		Lancaster 17601, 118 Keller 4Ne. 410-485-555 Philadelphia 19103, 3937, 2017-91 Bustleton Ave. 215-564-5720 Philadelphia (19103, 3977-91 Bustleton Ave. 215-564-7771 Pasadena 410-486-5456 Philadelphia (19104), 9977-91 Bustleton Ave. 215-564-7771 Arg. Arg. Arg. Arg. Para Bustleton Ave.			Greenville 29607, 1557 Laurens Rd TENNESSEE: Chattanooga 37421, 6231 Perimeter Drive, Sp.	_		1. 702-641-6555 Fort Worth 76111, 721 North Beach St. 817-881-3282 darked 7094, 201-861-8628 darked 7092, 236 E. Tidwell Rd. 713-662-3012 Houston 7022, 236 E. Tidwell Rd. 713-662-3019 Stella Llik Blvd. 778-262-3019 Stella Llik Blvd. 778-664-3066 Stella Llik Blvd. 778-67-306		17 - 684-2220 Whishink Trip Rd 516-7274-706 Falls Church 22046, 344 W. Broad St. 6703-533-7313 Rd 516-7274-706 Falls Church 22066, 344 W. Broad St. 694-86-6932 Rd 703-633-7313 Rd 716-436-1310 Mortilly 23513, 7351 Sewalls Point Rd. 804-449-3235 VF Rd 716-424-1310 Mortilly 23512, 1424 Chamberlayne Ave. 804-649-9245 Mortilly 23513, 716-424-1310	> > >
-----------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------	-----------------------------------------------------------------	---	--------------------------------------	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--	-------------------------------------------------------------------------------------------	---	--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------

ALBERTA

Edmonton T6E 6H6, 3845 99th St. 403-462-5005

BRITISH COLUMBIA

Vancouver V5M 3Y7, 1735 Boundary Rd. 604-291-9942

MANITOBA

Winnipeg R3H OK3, 934 St. James St.204-783-7294

Halifax B3K 2A4, 6100 Young Street.902-453-5090 NOVA SCOTIA

ONTARIO
Brockville K6V 5W6, 100 Central Ave........613-342-6641
Kanata K2L 1V3, 462 Hazeldean Rd #11 613-831-2332

London NGE 3A9, 981 Wellington Rd #6 519-649-2407 Markham L3P 3J3, 9275 Hwy 48 Unit 12/13 ... 905-472-6168 Mississauga L4X 1L3, 1480 Dundas St. E #7 ... 905-277- 0011 North York M3J 3G5, 48 Kodiak Cres 416-635-6740 Glencairn Plaza

QUEBEC

Brossard J4W 1M6, 5840 Boul Taschereau ... 514-462-4881 Montreal H1Y 1B4, 3061 Belanger 514-722-1021

FOR ADDITIONAL SERVICE LOCATIONS

CALL: 1-800-9- BD TOOL

Black & Decker (U.S.) Inc. • 701 East Joppa Road, Towson, Maryland 21286 Printed in U.S.A. (APR95-CD-4) Form No. 159195-01 Copyright © 1994, 1995